

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Joseph Fox on December 3, 2009.

The application has been amended as follows:

In the specification

paragraph 0008, line 1, for proper grammar as requested by applicants, "researches on" has been changed to -- and researching -- ;

paragraph 0008, line 11, for proper spelling as requested by applicants, "cavitiy" has been changed to -- cavity -- ;

paragraph 0011, line 2, for proper spelling as requested by applicants, "cavitiy" has been changed to -- cavity -- ;

paragraph 0011, line 9, for proper grammar as requested by applicants, "be at equal" has been changed to -- be equal -- ;

paragraph 0012, last line, "pneumatic tire or the wheel" has been changed to -- pneumatic tire and/or the wheel -- (supported by specification paragraphs 0022-0029: applicants have disclosed various positions for circumferentially extending tubes, some on the pneumatic tire and some on the wheel, but applicants have disclosed only a position on the wheel for radially extending tubes (Figure 15); therefore, the circumferentially extending tubes in Figure 7 could be either on the pneumatic tire or on the wheel while the radially extending tubes in Figure 7 must be on the wheel);

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paragraph 0018, line 4, for proper spelling as requested by applicants, “cavitiy” has been changed to -- cavity -- ;

paragraph 0020, line 12, for proper spelling as requested by applicants, “cavitiy” has been changed to -- cavity -- ;

paragraph 0020, line 14, for proper spelling as requested by applicants, “cavitiy” has been changed to -- cavity -- ;

paragraph 0027, line 2, for proper spelling as requested by applicants, "spork" has been changed to -- spoke -- ;

paragraph 0027, line 3, for proper spelling as requested by applicants, "spork" has been changed to -- spoke -- ;

paragraph 0028, line 2, for proper spelling as requested by applicants, "spork" has been changed to -- spoke -- ;

paragraph 0029, line 2, for proper spelling as requested by applicants, "spork" has been changed to -- spoke -- ;

In the claims

claim 1 has been cancelled;

claim 2 has been rewritten to distinguish over the prior art, to eliminate vague language, and to clarify applicants’ definition of the term “location on a circumference”, as --

2. (Currently Amended) A tire wheel assembly, which includes a pneumatic tire having a pair of left and right bead portions, and a wheel provided with a rim fitted with the pneumatic tire, and forms a cavity portion between the pneumatic tire and the rim, wherein:

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a plurality of tubes, each of which has one end thereof closed while having a length of 55% to 110% of a reference length L0 ~~corresponding equal~~ to one fourth of a cavity resonance wavelength, are provided so as to open to the cavity portion; and

the plurality of tubes are two pairs of tubes whose opening portions of these tubes are arranged in one arbitrary location on a circumference, or in two locations facing each other across a rotational axis of the tire with each pair's opening portions arranged in one arbitrary location on a circumference, each pair having one of the tubes formed on the inner surface of a bead portion of the tire so as to extend in the circumferential direction of the tire and the other of the tubes provided with the wheel, an angle of equal to or less than 35 degrees with respect to the rotational axis of the tire defining a range of each of the locations on a circumference where the opening portions of one of the pairs of tubes are arranged.

-- (supported by specification paragraphs 0022-0029: applicants have disclosed various positions for circumferentially extending tubes, some on the pneumatic tire and some on the wheel, but applicants have disclosed only a position on the wheel for radially extending tubes (Figure 15); therefore, the circumferentially extending tubes in Figure 7 could be either on the pneumatic tire or on the rim while the radially extending tubes in Figure 7 must be on the wheel);

claim 3 has been cancelled (subject matter now in claim 2);

claims 4-6 have been rewritten for proper antecedent basis as --

4. (Currently Amended) The tire wheel assembly according to ~~any one of claims 1 to 3~~ claim 2, wherein the length of ~~the~~ each tube is set at 85% to 105% of the reference length L0.

5. (Currently Amended) The tire wheel assembly according to ~~any one of claims 1 to 3~~ claim 2, wherein a cross-sectional area of ~~the~~ each tube is set at 0.2% to 10% of a cross-sectional area of the cavity portion.

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6. (Currently Amended) The tire wheel assembly according to ~~any one of claims 1 to 3~~ claim 2, wherein an inside of ~~the~~ each tube is filled with any one of a porous material and a non-woven fabric which have air permeability.

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claims 7 and 8 have been cancelled (subject matter now contradicts claim 2);

new claims 9-11 directed to the specific wheel-positioned tube arrangements in Figures 13-15 have been added as --

9. (New) The tire wheel assembly according to claim 2, wherein the other of the tubes provided with the wheel is formed on an outer peripheral surface of the rim so as to extend in the circumferential direction of the rim.

10. (New) The tire wheel assembly according to claim 2, wherein the wheel is provided with a spoke portion joined to the rim, and the other of the tubes provided with the wheel is formed in the portion joining the spoke portion to the rim so as to extend in the circumferential direction of the rim and to communicate with the cavity portion through the outer peripheral surface of the rim.

11. (New) The tire wheel assembly according to claim 2, wherein the wheel is provided with a spoke portion joined to the rim, and the other of the tubes provided with the wheel is formed in the spoke portion so as to extend in a diametrical direction of the rim, in a folded back structure if necessary to secure a sufficient length thereof, and to communicate with the cavity portion through the outer peripheral surface of the rim.

-- (supported by specification paragraphs 0027-0029).

2. The following is an examiner's statement of reasons for allowance: The prior art of record fails to disclose or suggest applicants' tire wheel assembly, including the particular construction and arrangement of the two pairs of tubes, in the claimed environment.

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Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Adrienne C. Johnstone whose telephone number is (571) 272-1218. The examiner can normally be reached on Monday-Friday, 1:00PM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on (571) 272-1226. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Adrienne C. Johnstone
Primary Examiner
Art Unit 1791

Adrienne Johnstone

/Adrienne C. Johnstone/

December 18, 2009